CLAIMS

What I claim as my invention is:

1. (Currently amended)   An integrated relational database data editing system providing a visual environment, graphic user interfaces and tools in a client computer to

5   remotely access a server computer that contains a relational database and to manage and edit said database data contents through either intranet or Internet, and said system includes the following mechanisms and characters:

(i)   said client computer retrieves the database data from the remote server computer database, modifies, updates, input, output the data and then sends the data back to

10   the original database; and

(ii)   said client computer directly edits and modifies the database data without writing detail computer language codes in an efficient and easy-to-use manner; and

(iii)   said client computer directly edits and modifies the large text data type and large binary data type by using a plurality of commercial text and multimedia data editors

15   installed on the client computer; and

(iv)   said database data editing system uses TCP/IP (Transfer Control Protocol/Internet Protocol) based connection-oriented network protocols to communicate between the client and server computers through a single computer port or a set of computer ports; and

20   (v)   said database data editing system implements user authentication and access control mechanisms which assign different user groups with different privileges.

2. (Currently amended)   The database data editing system of claim 1 contains the well-defined graphic user interfaces and tools that display a database table or a subset data of a table and have the following characters:

25   (i)   said database data on each table cell is defaulted as read only; and

(ii)   said database small text data on each table cell is directly edited when single-clicked by the mouse; and

(iii)   said table cell contains a small icon as a place-holder for the large text data type or large binary data type; and

30   (iv)   said commercial data editor is popped up from the local client computer when double-clicked the small icon of a table cell by the mouse and the database data is

downloaded into the data editor from the remote server database and the edited data is then sent back to the original database when data editing is completed; and

    (v)   said data editor is either a text editor or a multimedia editor depending on the database data type inside the table cell.

3.   The database data editing system of claim 1 contains a Database Data Manager in the client computer comprising a Header Panel and a Detail Panel, which provides a user-friendly visual environment and tools to manage and edit the database data contents.

4.   The Header Panel of the Database Data Manager of claim 3 contains a list of databases and database tables for each database, and

    (i)   a Detail Panel is popped up when double-clicked the database name; and

    (ii)   a database table is popped up when double-clicked the table name.

5. (Currently amended)   The Detail Panel of claims 3 & 4 further contains:

    (i)   a Database Designer for creating and modifying the database; and

    (ii)   an Entity Relationship Designer for editing and managing the entity relationships of the database tables; and

    (iii)   a Table Designer for designing and modifying the database tables; and

    (iv)   a Database Schema for designing and modifying the database data structure and micros; and

    (v)   a Data Filter for selecting a set of data from one or more database tables; and

    (vi)   an SQL Console for writing and executing the SQL codes to the remote server database.

6.   A client/server version of the integrated database data editing system of claim 1 is implemented by using Java technologies and deployed to the intranet.

7. (Currently amended)   A web version of the database data editing system of claim 1 is implemented by using web, plug-in and Java technologies and deployed to Internet and other network systems, and further has more advantages to implement the security features by using the PKI (Public Key Infrastructure), SSL (Secure Socket Layer) and firewall.

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